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Application Number	09/757,926
Filing Date	1/10/2001
First Named Inventor	S.M. Garland
Art Unit	2145 WD
Examiner Name	T. Duong
Attorney Docket Number	47-10
Total Number of Pages in This Submission	47*

ENCLOSURES (Check all that apply)

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Werner Ulrich		
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Date	2/4/2006	Reg. No.	30810

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventors:	S. M. Garland et al.
Case:	47-10
Serial No.:	09/757,926
Filing Date:	January 10, 2001
Group Art Unit:	~~2143~~ 2145
Examiner:	T. Duong
Title:	Customer Definable Precedence And Preemption For Message Services

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

Sir:

COVER LETTER FOR REVISED BRIEF

Enclosed please find in triplicate, a Revised Appeal Brief for the above-identified Application. Applicants have already sent in a check for $500.00 to cover the cost of filing the Appeal as set forth in 37 C.F.R. 41.20(b)(3).

A Revised Appeal Brief is being submitted in response to the Notification of Non-Compliant Appeal Brief sent January 23, 2006. The revised Appeal Brief contains all of the material of the original Appeal Brief plus the material requested in the Notification of Non-Compliant Appeal Brief. The added material is placed immediately after the Status of Amendments and before the Summary of the Invention.

Respectfully submitted,
S. M. Garland et al.

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Date: Feb. 4, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventors: S. M. Garland et al.

Case: 47-10

Serial No.: 09/757,926

Filing Date: January 10, 2001

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Examiner: T. Duong

Title: Customer Definable Precedence And Preemption For Message Services

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VIRGINIA 22313-1450

Sir:

REVISED APPEAL BRIEF UNDER 37 C.F.R. 41.37

This is an Appeal to the Board of Patent Appeals And Interferences from the Final Rejection dated May 27, 2005.

1. **Was Notice of Appeal timely filed?**

   _x_ A Notice of Appeal was timely filed.

2. **Real Party in interest?**

   _x_ The real party in interest is Lucent Technologies Inc.

3. **Related Appeals or Interferences?**

   _x_ There are no related Appeals or Interferences.

Status of Claims:

Claims 1, 2, 5, 7, 8, and 11 stand finally rejected.

A copy of the Claims under Appeal as now presented is appended to this Brief in Appendix "A".

Status of Amendments:

All amendments to the claims have been entered.

Explanation of the Subject Matter of Each Independent Claim Involved in the Appeal and Each Dependent Claim Argued Separately:

Claim 1:

In summary, claim 1 recites a method of delivering a plurality of data messages to a customer at a customer station (the called customer terminal 32, FIG. 1). The claim recites delivering a message directly to an idle customer station; if the customer station is busy, storing a received message in storage for the precedence level of the received message; notifying a customer at a busy station that a message is being received; responsive to signals from the customer receiving the notification, immediately delivering the message to the customer station; and delivering to an idle customer station, messages that have been stored, including delivering stored messages of higher precedence level before delivering stored messages of lower precedence level.

In terms of the specific steps of claim 1, the first step recites:

if the customer station is idle ("yes" output of action block 213, FIG. 2) delivering a message directly to the customer station (action block 215, FIG. 2)

This subject matter is recited on page 8, lines 5-6.

The second clause recites:

if the customer station is busy ("no" output of test 213, FIG. 2) receiving another message, determining a precedence level for a received message (action block 217, FIG. 2) and storing the received message in storage associated with that precedence level (action block 219, FIG. 2.

This subject matter is discussed on page 8, lines 5-9. Note that line 8 specifically states:

The message is then stored in a queue appropriate to the precedence level of the incoming message (action block 219).

The next clause recites:

if the customer station is busy receiving said another message, (continuation from test 213, "no" output and action blocks 217 and 219 discussed above) notifying the customer that said message is being received by a system for storing received messages (test 301 "no" output, test 303 "yes" output, action block 305 or test 301 "yes" output", action block 311).

This subject matter is discussed on page 8, line 12 - page 9, line 10.

The next clause recites:

if said customer, responsive to said notifying, signals for immediate delivery of said message to said customer station (action block 307) immediately delivering said message to said customer station (action block 307, action block 333).

This subject matter is discussed on page 9, lines 3-4.

The final clause recites:

subsequently, when the customer station is idle (action block 401, FIG. 4) delivering messages to the customer station from storage of higher precedence level before delivering messages from storage of lower precedence level (action block 403).

This subject matter is discussed on page 10, lines 15-18.

Claim 2:

In summary, claim 2 adds to the method of claim 1 the arrangements for preemption. If a message with a preemption level is received, then the reception of the current message is interrupted if the precedence level is above a precedence level of the message currently being received, but also permits the customer to defer the delivery of the interrupting message.

Claim 2 recites:

wherein certain classes of messages also have a preemption level (test 313 "yes" output), wherein if said customer station receives a message with a preemption level (test 313 "yes" output), the reception of said another message is interrupted if the precedence level of the received message is above a precedence level of said another message currently being received by the customer (test 301 "yes" output) unless the customer responsive to said notifying (action block 315, FIG. 3) signals for a deferral of delivery of said message (test 317 "yes" output action block 321).

This subject matter is discussed on page 9, line 16 - page 10, line 6.

Claim 7:

In summary, claim 7 recites apparatus for delivering a plurality of data messages to a customer at a customer station (the called customer terminal 32, FIG. 1). The claim recites delivering a message directly to an idle customer station; if the customer station is busy, storing a received message in storage for the precedence level of the received message; notifying a customer at a busy station that a message is being received; responsive to signals from the customer receiving the notification, immediately delivering the message to the customer station; and delivering to an idle customer station, messages that have been stored, including delivering stored messages of higher precedence level before delivering stored messages of lower precedence level.

In terms of the specific elements of claim 7, the first clause recites:

> means (20, 26) responsive to recognizing that the customer station is idle ("yes" output of action block 213, FIG. 2) for delivering a message directly to the customer station (action block 215, FIG. 2)

This subject matter is recited on page 8, lines 5-6 and on page 5, lines 1-5.

The second clause recites:

> means (20, 26), responsive to recognizing that the customer station is busy ("no" output of test 213, FIG. 2) receiving another message, for determining a precedence level for a received message (action block 217, FIG. 2) and storing (23) the received message in storage associated with that precedence level (action block 219, FIG. 2).

This subject matter is discussed on page 8, lines 5-9, and page 5, line 6 - page 6, line 1.

Note that line 8 of page 8 specifically states:

> The message is then stored in a queue appropriate to the precedence level of the incoming message (action block 219).

The next clause recites:

> means (20, 11, 5, 3), responsive to recognizing that the customer station is busy receiving said another message, (continuation from test 213, "no" output and action blocks 217 and 219 discussed above) for notifying the customer that said message is being received by a system for storing received messages (test 301 "no" output, test 303 "yes" output, action block 305 or test 301 "yes" output", action block 311).

This subject matter is discussed on page 8, line 12 - page 9, line 10.

The next clause recites:

if said customer, responsive to said notifying, signals for immediate delivery of said message to said customer station (action block 307) immediately delivering said message to said customer station (action block 307, action block 333).

This subject matter is discussed on page 9, lines 3-4.

The final clause recites:

means (20) for subsequently, when the customer station is idle (action block 401, FIG. 4) delivering (20, 30) messages to the customer station from storage (23, 25) of higher precedence level before delivering messages from storage (23, 24) of lower precedence level (action block 403).

This subject matter is discussed on page 10, lines 15-18.

Claim 8:

In summary, claim 8 adds to the apparatus of claim 7 the arrangements for preemption. If a message with a preemption level is received, then the reception of the current message is interrupted if the precedence level is above a precedence level of the message currently being received, but also permits the customer to defer the delivery of the interrupting message.

Claim 8 recites:

wherein certain classes of messages also have a preemption level (test 313 "yes" output), wherein if said customer station (32) receives a message with a preemption level (test 313 "yes" output), the reception of said another message is interrupted by said means (20) for delivering messages if the precedence level of the received message is above a precedence level of said another message currently being received by the customer (test 301 "yes" output) unless the customer, responsive to said notifying (action block 315, FIG. 3), signals for a deferral of delivery of said message (test 317 "yes" output action block 321).

This subject matter is discussed on page 9, line 16 - page 10, line 6, and page 5, line 16 - page 6, line 1.

Summary of the Invention:

The invention as presently claimed teaches arrangements for flexibly routing messages from a telecommunications network to a customer station. If the customer station is busy, the messages are stored by precedence level for subsequent delivery with high precedence level messages being delivered before low precedence level messages.

A busy customer station is informed of the reception of a message so that if the customer requests an immediate reception of that message, such a request can be honored.

Grouping of Claims:

Claim 1 is an independent method claim; claims 2 and 5 are method claims dependent from claim 1.

Claim 7 is an independent apparatus claim; claims 8 and 11 are apparatus claims dependent from claim 7.

Issues:

Are claims 1, 2, 5, 7, 8 and 11 unpatentable over the teachings of U.S. Patent 5,845,074 (Kobata) in view of U.S. Patent 6,147,977 (Thro) and further in view of U.S. Patent 6,292,825 (Chang)?

Arguments:

In an Office Action dated May 27, 2005, the Examiner rejected claims 1, 2, 5, 7, 8 and 11 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,845,074 (Kobata), in view of U.S. Patent 6,147,977 (Thro), and further in view of U.S. Patent 6,292,825 (Chang).

Applicants will first address the rejections of claims 1 and 7 which are analogous method and apparatus independent claims.

Kobata deals with the situation in which a server collects a plurality of messages and transmits these messages to the CPU and its local memory when the CPU is available. After a message has been transmitted to a customer's central processing unit (CPU), an icon for that message is set so that the user of the CPU knows that the message associated with the icon has been received and can choose to view it. If messages associated with a plurality of icons have been received, the CPU user can select among these messages and have the message displayed by the simple act of clicking on the icon.

Applicants' invention relates to a different problem. A plurality of messages are received in the network and cannot all be immediately delivered to the customer's CPU. In accordance with Applicants' invention, while one message is being delivered an indication of another message is displayed to the customer who can then decide to abort the reception of the message currently being received and request instead that the message about which the customer was just notified be immediately transmitted and the

transmission of the message previously being received be deferred. All of this is recited, for example, in claim 1 which recites

> ...delivering a plurality of data messages to a customer at a customer station,...;
>
> ...
>
> if the customer station is busy receiving another message, determining a precedence level for a received message, and storing the received message in storage associated with that precedence level;
>
> if the customer station is busy receiving said another message, notifying the customer that said message is being received by a system for storing received messages;
>
> if said customer, responsive to said notifying, signals for immediate delivery of said message to said customer station, immediately delivering said message to said customer station;
>
> subsequently, when the customer station is idle, delivering messages to the customer station from storage of a higher precedence level before delivering messages from storage of lower precedence.

The Examiner states that Kobata, column 2, lines 16-27, teaches that:

If the customer station is busy receiving said another message, notifying the customer that said message is being received by a system for storing received messages.

However, the cited passage of Kobata recites:

> At the same time, the subject invention provides a change in the methodology of transmitting information by indicating that the information which has been subscribed to is available through the utilization of an on-screen icon. What this means to the end user is that rather than having to click through numerous windows to obtain the information for which he/she has subscribed, in the subject invention all that is necessary to click on the appropriate icon on the screen, at which time the information from the server which has been locally stored is opened and presented to the user, thereby providing an ease of access to the information heretofore not possible. [Kobata, column 2, lines 16-27]

Thus, the cited passage of Kobata indicates to the user that the message has been received ("the information which has been subscribed to is available"). In Kobata, the use of the icon is the arrangement for notifying the customer that a message has been received (and, incidentally, that the message can be readily accessed by clicking on the icon). The difference between Applicants' invention and these teachings of Kobata are not only a difference in time, but a difference in basic operation. In Kobata, the messages

are autonomously received and the user is then notified of the reception of a message. In Applicants' case, the user has control over the reception of the message.

Thro teaches arrangements for processing messages based on an originator priority and a recipient priority in order to ensure that the most important messages as identified by the priority of the originator and the recipient are processed first. The server further provides notice of the message to the receiving party based on the message priority. Thus, Thro simply teaches a particular arrangement for determining precedence.

Chang discloses arrangements wherein a service provider sends a notification of an arrival of an event/notification message and sends this notification to all relevant consumers of this message. Each relevant consumer can then "pull" the message by making a suitable request.

In summary, Kobata is a system for transmitting information from a server to a terminal and for displaying an icon to the terminal when a message associated with the icon has been delivered. Thro is an arrangement for delivering messages from a server to a plurality of receiving parties in such a way as to transmit the highest priority messages first. Chang is an arrangement for notifying users of the receipt of a message received by a service provider. None of these references combine the notification of a customer who is receiving a different message with the ability to interrupt the reception of this different message in order to display the requested message.

Applicants further respectfully submit that there is no teaching in any of the three references to suggest that the teachings of the other reference would be desirable in combination with the reference. Specifically, the primary reference is Kobata. Kobata simply teaches the transmission of messages to an end user when the end user is available and the display of an icon associated with the message when the message has been fully received. There is no indication of storing different messages in storage for different precedence levels in order to ensure that high precedence messages are eventually transmitted to the user terminal before lower level precedence messages. There is no arrangement for notifying a customer of a message which has not yet been transmitted to the customer nor for allowing the customer to request that a particular message be transmitted immediately even if the message is of a lower precedence level or if the customer station is busy receiving another message. Applicants respectfully submit that

teachings related to precedence level and "pulling" of messages which even if arguably taught by the other references are only combinable with the primary reference based on Applicants' teachings.

In addition, Applicants respectfully submit that the Examiner's arguments concerning individual clauses are inaccurate. Concerning the clause:

> if the customer station is busy receiving another message, ...storing the received message in storage associated with that precedence level [claim 1]

For the convenience of the Board, Applicants will cite the passage from Kobata used by the Examiner to indicate what is taught in Kobata.

> At the same time, the subject invention provides a change in the methodology of transmitting information by indicating that the information which has been subscribed to is available through the utilization of an on-screen icon. What this means to the end user is that rather than having to click through numerous windows to obtain the information for which he/she has subscribed, in the subject invention all that is necessary to click on the appropriate icon on the screen, at which time the information from the server which has been locally stored is opened and presented to the user, thereby providing an ease of access to the information heretofore not possible. [Kobata, column 2, lines 16-27]

There is no indication in the above passage that messages at different precedence levels are stored in storage associated with that precedence level. The icon is an identification of a particular message type and even if there was a different precedence level for each icon, a very unlikely situation, there is no indication of precedence type treatment for messages associated with different icons.

Concerning the clause "if the customer station is busy receiving said another message, notifying the customer that said message is being received by a system for storing received messages", the Examiner indicated that the above passage also supports this teaching. Applicants respectfully submit that the above passage teaches the use of icons for indicating that the customer station has received a message associated with the icon not as in the cited passage from the claim that a message is "being received by a system for storing received messages".

Concerning the clause "if said customer, responsive to said notifying, signals for immediate delivery of said message to said customer station, immediately delivering said message to said customer station", according to the Examiner, this passage is supported

by Chang, column 6, lines 54-67, shown below, with respect to the rejection of claim 2. The Chang passage simply states that there is a way of requesting messages. There is no indication that the messages are being requested on an interrupt basis (i.e., interrupting the reception of other messages) or even that the messages are being transmitted to a customer station except when the customer station requests them. Accordingly, the only pertinent teaching of Chang teaches is that it is possible to request a message which has been stored in a network. (In Chang's case, the messages are usually event notification messages.)

In view of the above, Applicants respectfully submit that claim 1, and the corresponding apparatus claim 7 should be held allowable over the prior art.

Concerning the rejection of claims 2 and 8, claim 2 recites:

> The method of Claim 1, wherein certain classes of messages also have a preemption level, wherein if said customer station receives a message with a preemption level, the reception of said another message is interrupted if the precedence level of the received message is above a precedence level of said another message currently being received by the customer, unless the customer, responsive to said notifying, signals for a deferral of delivery of said message. [Emphasis added]

The Examiner cited Chang, column 6, lines 54-67 and Thro, column 7, lines 1-67 as teaching the subject matter of claim 2. These passages are reproduced herein for the Board's convenience.

> The following pseudocode listing describes a methodology for a "Pull_Event_Out" operation, i.e. pulling real events from the Event Channel into the pull consumer. In a normal event pulling model, events with the same priority can only be pulled in a first-in first-out order. The user has no other option with regard to which event the user can pull first. If the user decides to pull a specific event, the user should not have to wait for all the events with a higher priority to be received before the user can receive the specific event chosen. After the pull consumer decides to pull the real event after having first examined the notice or "Notified Message", the particular event is located in the message queue, and then delivered immediately to the pull consumer, bypassing higher priority events. [Chang, column 6, lines 54-67]

> As another example of generating the message priority, the highest priority in any of the tables would be used as the message priority. Using the same assumptions as above, the user defined priority level for a message containing a subject of golf is level 5. Thus, the message priority would be level 5. As such, the message would be routed to the user's cellular telephone. As

those having ordinary skill in the art will readily appreciate, any number of priority tables may be used to establish the priority matrix. Note that the tables of FIG. 2 are included for illustrative purposes and, as those having ordinary skill in the art will readily appreciate, there may be more or less tables used as identified priority parameters to establish the priority matrix as well as more or less entries within each priority table. Additionally, the number of priorities of the originator priority may very greatly from the four discussed.

As one of average skill in the art will further note, messages are not only prioritized for delivery to a specific device, but are sent to single device in a prioritized fashion such that the system is not operating in a FIFO (first-in first-out) mode. For example, assume 3 originators accessing the system at the same time, the first leaving a low priority message, the second leaving a high priority and a third leaving a medium priority message, all for the same receiving party. If the receiving party has specified that at the current time, all messages go to his cellular telephone, then the messages will be delivered such that the highest priority message is delivered first. Further note that the final output of the system is not only a routing to a specific device based on a priority level. For example, a member of a NHTSA Go-Team responsible for investigating aircraft crashes may want any message with the content "scramble" to be simultaneously delivered to all of the devices listed in priority routing table 80. This is accomplished by varying the order in which the priority tables are processed. In its most general form the inputs to the rules matrix are: originator priority; receiving party priority; originating device; time of day/day of week/day of year; message content; originator location; and receiving party location. The outputs are generated in the form: time of delivery; device choice; message content (may be filtered/truncated or converted to the appropriate media); message priority relative to other messages bound for current device choice; and message priority relative to all other messages.

Note that when a message cannot be promptly delivered, new rules may be in effect at the time that delivery can be effected. This implies that all of the original inputs should be stored for subsequent processing. In the preferred implementation, information is processed through the priority tables in an order specified by the receiving party. Further note that the server stores a plurality of tables for each receiving party 54 which it utilizes to generate the priority matrix for the receiving party. Alternatively, the server may store a plurality of tables, which it uses to generate the priority matrix for a group of receiving parties. Still further, the server may dynamically generate the known party and unknown party priority tables depending on the identity of the particular originating party. For example, if the system is used in a hospital, any message originated by the Chief of Staff, would be given a high priority message and routed directly to the receiving party. Alternatively, if the message is originated by the janitorial service, the message may receive a lower priority. In addition, unknown parties such as labs, or other testing facilities, may receive high-priority such that doctors can be provided with information relating to lab work or other medical testing information. [Thro, column 7, lines 1-67]

Thus, Chang simply teaches that the user may request a message out of sequence. There is no indication of preemption, i.e., an autonomous action changing the delivery sequence. The Thro passage simply teaches that precedence levels can be flexibly controlled and can be arranged that different terminals have different precedence levels for the same kind of message. There is no preemption interrupt taught in either the Thro or the Chang passage (nor is there a teaching of preemption in Kobata). Accordingly, claims 2 and 8 should be held allowable over the cited prior art.

Concerning the rejections of claims 5 and 11, Applicants submit that these claims should be held allowable because these claims are dependent from claims 1 and 7, argued above as being allowable.

Summary:

Applicants have taught and claimed arrangements for controlling the reception of messages in a customer station. They have taught storage of messages being received according to precedence level, notifying customers that a message is being received by the system for storing messages, and permitting a customer to request immediate delivery of a message being received. In addition, in dependent claims 2 and 8, Applicants have taught that preemptive messages can interrupt the reception of other messages. Applicants respectfully submit that these teachings taken as a whole are not suggested by the cited references.

Conclusion:

In view of the foregoing, it is submitted that the Examiner is in error. It is accordingly respectfully requested that the rejection of claims 1, 2, 5, 7, 8, and 11 be

reversed. Applicants accordingly request that the application including these claims be allowed and passed to issue.

Respectfully submitted
S. M. Garland et al.

Werner Ulrich

by Werner Ulrich
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Attached:
Appendix A - Rejected Claims 1, 2, 5, 7, 8, and 11 as presently submitted

APPENDIX A TO
Appellants' Brief Under 37 C.F.R. 41.37
Claims for S. M. Garland 47-10

1. A method of delivering a plurality of data messages to a customer at a customer station, comprising the steps of:

if the customer station is idle, delivering a message directly to the customer station;

if the customer station is busy receiving another message, determining a precedence level for a received message, and storing the received message in storage associated with that precedence level;

if the customer station is busy receiving said another message, notifying the customer that said message is being received by a system for storing received messages;

if said customer, responsive to said notifying, signals for immediate delivery of said message to said customer station, immediately delivering said message to said customer station;

subsequently, when the customer station is idle, delivering messages to the customer station from storage of higher precedence level before delivering messages from storage of lower precedence level.

2. The method of Claim 1, wherein certain classes of messages also have a preemption level, wherein if said customer station receives a message with a preemption level, the reception of said another message is interrupted if the precedence level of the received message is above a precedence level of said another message currently being received by the customer, unless the customer, responsive to said notifying, signals for a deferral of delivery of said message.

5. The method of Claim 1, wherein the step of notifying comprises the step of:

notifying only if the received message is at or above a pre-determined precedence level.

7. Apparatus for delivering a plurality of data messages to a customer station, comprising:

means, responsive to recognizing that the customer station is idle, for delivering a message directly to the customer station;

means, responsive to recognizing that the customer station is busy receiving another message, for determining a precedence level for a received message, and for storing the received message in storage associated with that precedence level;

means, responsive to recognizing that the customer station is busy receiving said another message, for notifying a customer at said customer station that said message is being received by a system for storing received messages;

said customer, responsive to said notifying, operating signaling means for requesting immediate delivery of said message to said customer station;

means for, subsequently, when the customer is idle, delivering messages to the customer station from storage of higher precedence level before delivering messages from storage of lower precedence level.

8. The apparatus of Claim 7, wherein certain classes of messages also have a preemption level, wherein if said customer station receives a message with a preemption level, the reception of said another message is interrupted by said mean for delivering messages if the precedence level of the received message is above a precedence level of said another message currently being received by the customer station, unless the customer, responsive to said notifying, signals for a deferral of delivery of said message.

11. The apparatus of Claim 7, wherein the means for notifying comprises means for notifying only if the received message is at or above a pre-determined precedence level.